

Statistical Appendix

Ethan Michelson, "Family Planning Policy Enforcement in Rural China: Enduring State-Society Conflict?" Pp.189-226 in *Growing Pains: Tensions and Opportunity in China's Transformation*, edited by Jean C. Oi, Scott Rozelle, and Xueguang Zhou. Stanford, CA: Shorenstein Asia Pacific Research Center, distributed by Brookings Institution Press, 2010.

This version of the statistical appendix corrects one incorrectly reported coefficient (the coefficient for years of education in Table 8.A3, Model 1) and some formatting issues.

Table 8.A1. Descriptive Characteristics of Variables, All County-Level Administrative Units, China, 2000

	Mean	St. Dev.	Min.	Max.
Fertility				
Mean # Children (Age<15) per Household	.884	.320	.325	2.660
Mean # Children (Age<5) per Household	.222	.100	.056	.892
Gender Imbalance				
Boys per 100 Girls (Age<5)	116.633	13.770	89.666	197.291
Education				
Mean Years of Education (Age>6)	7.432	1.514	.634	11.848
Industrialization				
% Total Labor Force in Secondary Industry	16.793	15.931	.000	81.180
% Total Labor Force in Secondary Industry (log)	2.470	.939	.000	4.409
% Population Han				
% Total Population Han	83.835	28.979	.219	100.000
Urbanization				
% Total Population Urban Residents	38.430	31.685	.000	100.000

Source: SSA 2003a

Note: N=2,870 county-level administrative units

Table 8.A2. Correlation Matrix of Variables, All County-Level Administrative Units, China, 2000

	A.	B.	C.	D.	E.	F.	G.
A. Mean # Children (Age<15) per Household	1.00						
B. Mean # Children (Age<5) per Household	.90	1.00					
C. Boys per 100 Girls (Age<5)	.23	.02	1.00				
D. Mean Years of Education (Age>6)	-.74	-.73	.00	1.00			
E. % Total Labor Force in Secondary Industry (log)	-.67	-.57	-.14	.73	1.00		
F. % Total Population Han	-.48	-.59	.25	.55	.45	1.00	
G. % Total Population Urban Residents	-.62	-.48	-.19	.73	.79	.27	1.00

Source: SSA 2003a

Note: N=2,870 county-level administrative units

Table 8.A3. Determinants of Fertility and Gender Imbalance, All County-Level Administrative Units, China, 2000 (Unstandardized OLS Regression Coefficients)

	Fertility (Kids/HH) (×100)		Gender Imbalance	
	(Age<15)	(Age<5)	Model 3	Model 4
	Model 1	Model 2		
% Total Population Han	-.115** (.017)	-.090** (.005)	.232** (.009)	.213** (.010)
% Total Population Urban Residents	-.071* (.022)			
% Total Labor Force in Secondary Industry (log)	-7.468** (.729)	-.651** (.186)	-1.285** (.330)	-3.880** (.312)
Mean Years of Education (Age>6)	-10.081** (.445)	-3.571** (.124)		
Mean # Children (Age<15) per Household			17.334** (.987)	
Mean # Children (Age<5) per Household				17.893** (3.247)
Constant	194.097** (2.355)	57.895** (.624)	85.055** (1.731)	104.370** (1.648)
R ²	.595	.585	.226	.152
Adjusted R ²	.594	.585	.226	.151

Source: SSA 2003a

Note: * $p \leq .01$ ** $p \leq .001$, two-tailed tests. Standard errors in parentheses. N=2,870 county-level administrative units. “Fertility” is measured as the mean number of children per household “Gender imbalance” is measured as the number of boys per 100 girls under age five. Urbanization removed from Model 2 owing to multicollinearity (causing the effect to flip direction from negative in a bivariate model to positive in a multivariate model).

Table 8.A4. Descriptive Characteristics of Variables, Six Counties, Rural China, 2002

	Mean	St. Dev.	Min.	Max.
Discontent with Village Government				
% Households Expressing Discontent with Villagers' Committee	20.967	20.590	1.042	61.111
Family Planning Disputes				
% Households Reporting Family Planning Dispute	9.903	12.976	.000	56.667
Policy Enforcement Effort				
% Reported Encounters with Villagers' Committee for Birth Permit Applications	13.873	8.000	2.837	33.784
Policy Noncompliance				
% Households Presumed Policy Violators	2.243	4.233	.000	21.667
Fertility				
Mean # Children per Household (Age<15)	.646	.199	.304	1.117
Mean # Children per Household (Age<6)	.219	.150	.040	.733
Gender Imbalance				
Boys per 100 Girls (Age<6)	115.740	77.000	16.667	266.667
Education				
Mean Years of Education (Age>6)	7.348	.614	6.212	8.706
Industrialization				
% Total Labor Force in Enterprises	7.756	10.891	.000	50.970
% Total Labor Force in Enterprises (log)	1.700	.926	.000	3.951

Source: author's survey

Note: N=33 villages. Four of the 37 village samples contain no children under age six.

Table 8.A5. Correlation Matrix of Variables, Six Counties, Rural China, 2002

	A.	B.	C.	D.	E.	F.	G.	H.
A. Mean # Children (Age<15) per Household	1.00							
B. Mean # Children (Age<6) per Household	.75	1.00						
C. Boys per 100 Girls (Age<6)	.52	.41	1.00					
D. Mean Years of Education (Age>6)	-.30	.05	-.07	1.00				
E. % Total Labor Force in Enterprises (log)	-.48	-.38	-.42	-.02	1.00			
F. Policy Noncompliance	.68	.82	.47	-.15	-.33	1.00		
G. Policy Enforcement Effort	.49	.48	.44	.03	-.17	.53	1.00	
H. Family Planning Disputes	.71	.73	.53	-.41	-.31	.74	.31	1.00
I. Discontent with Villagers' Committee	.46	.41	.21	-.34	-.29	.31	.13	.50

Source: author's survey

Note: N=33 villages. Four of the 37 village samples contain no children under age six.

Table 8.A6. Determinants of Family Planning Policy Noncompliance and Enforcement Effort, Six Counties, Rural China, 2002 (Unstandardized OLS Regression Coefficients)

	Policy Enforcement Effort	% Policy Noncompliance		
	Model 1	Model 2	Model 3	Model 4
Boys per 100 Girls (Age<6)	.031 [^] (.017)	.026 ^{**} (.009)	.009 (.006)	
Mean # Children (Age<6) per Household	18.919 [*] (8.926)		21.466 ^{***} (3.088)	23.602 ^{***} (2.747)
Mean Years of Education (Age>6)				-1.351 [*] (.700)
Constant	6.130 [*] (2.470)	-.745 (1.206)	-3.479 ^{***} (.855)	7.012 (4.942)
R ²	.301	.221	.701	.718
Adjusted R ²	.255	.195	.682	.699

Source: author's survey

Note: [^] p≤.10 * p≤.05 ** p≤.01 *** p≤.001, two-tailed tests. Standard errors in parentheses. N=33 villages. Four of the 37 village samples contain no children under age six.

Table 8.A7. Determinants of Family Planning Disputes, Unstandardized OLS Regression Coefficients, Six Counties, Rural China, 2002

	Model 1	Model 2	Model 3	Model 4
% Households Presumed Noncompliant	2.277 ^{***} (.369)	1.317 [*] (.627)	1.027 (.627)	.263 (.519)
Mean # Children (Age<6) per Household		32.965 [^] (17.733)	31.825 [^] (17.146)	51.652 ^{***} (14.112)
Boys per 100 Girls (Age<6)			.038 [^] (.021)	.037 [*] (.017)
Mean Years of Education (Age>6)				-8.719 ^{***} (1.969)
Constant	4.795 ^{**} (1.745)	-.258 (3.196)	-3.737 (3.659)	57.821 ^{***} (14.193)
R ²	.552	.598	.637	.787
Adjusted R ²	.537	.571	.600	.756

Source: author's survey

Note: [^] p≤.10 * p≤.05 ** p≤.01 *** p≤.001, two-tailed tests. Standard errors in parentheses. N=33 villages. Four of the 37 village samples contain no children under age six. Dependent variable is "% households reporting family planning disputes."

Table 8.A8. Determinants of Discontent with Village Government, Unstandardized OLS Regression Coefficients, Six Counties, Rural China, 2002

	Model 1	Model 2	Model 3
Mean # Children per Household (Age<6)	56.255* (22.556)		13.086 (32.019)
Family Planning Dispute in Past 5 Years		.789** (.247)	.678^ (.369)
Constant	8.666 (5.947)	13.155** (3.998)	11.391^ (5.921)
R ²	.167	.247	.251
Adjusted R ²	.140	.223	.201

Source: author's survey

Note: ^ p<.10 * p<.05 ** p<.01, two-tailed tests. Standard errors in parentheses. N=33 villages. Four of the 37 village samples contain no children under age six. Dependent variable is "% households expressing discontent with villagers' committee."

Table 8.A9. Determinants of Fertility and Gender Imbalance, Six Counties, Rural China, 2002 (Unstandardized OLS Regression Coefficients)

	Fertility (Kids/HH)		Gender Imbalance		
	(Age<15) (Age<6)		Model 3	Model 4	Model 5
	Model 1	Model 2			
% Total Labor Force in Enterprises (log)	-.104** (.032)	-.061* (.027)	-34.582* (13.579)	-18.076 (14.370)	-25.490^ (14.232)
Mean Years of Education (Age>6)	-.101* (.049)	.011 (.041)			
Mean # Children (Age<15) per Household				161.210* (66.873)	
Mean # Children (Age<6) per Household					149.505^ (88.092)
Constant	1.566*** (.364)	.244 (.308)	174.540*** (26.200)	42.356 (6.006)	126.389** (38.107)
R ²	.325	.144	.173	.307	.246
Adjusted R ²	.280	.087	.146	.261	.195

Source: author's survey

Note: * p<.05 ** p<.01 *** p<.001, two-tailed tests. Standard errors in parentheses. N=33 villages. Four of the 37 village samples contain no children under age six. Education omitted from "gender imbalance" models owing to multicollinearity (causing the effect to flip direction from negative in a bivariate model to positive in a multivariate model)